A PROBIOTIC CONTAINING VIABLE SPORES OF *BACILLUS LICHENIFORMIS* REDUCES LAMENESS IN BROILERS

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Background

B-Act® is a probiotic feed additive, consisting of viable spores of *Bacillus licheniformis*.

Objectives

Objective of the 53 day study was to determine, if B-Act® can reduce and delay incidences of lameness in bacterial chondonecrosis and osteomyelitis (BCO) induced broilers.

Materials and methods

Broilers were randomly assigned to 3 treatment groups with 40 birds per treatment and housed on wire to induce BCO without any bacterial challenge. Treatment groups were: 1. no additives (control group; CG); 2. enrofloxacin group (EG; enrofloxacin treatment from day 28-47) or 3. B-Act® (1.6\*109 cfu Bacillus licheniformis/kg of feed), fed continuously. Lameness percentage at the end of the trial was determined. Significance was set at p<0.05. Day of first lameness incidences – defined as 3% of broilers being lame - was identified.

Results:

The study shows, that the addition of enrofloxacin and B-Act® can significantly reduce lameness in broilers compared to broilers receiving no additives. The lameness percentage was reduced from 36% in CG to 10% in EG and 16% in the B-Act® group. Differences between the EG and the B-Act® group were not significant (10 vs 16%). The first incidences of lameness were reported at day 40 in CG, while in the B-Act® and EG groups the onset of lameness took place on day 45 and 46, respectively.

Conclusions:

Feeding of B-Act® reduced the occurrence of lameness in BCO induced broilers significantly. No significant differences in the occurrence and the day of onset of lameness between enrofloxacin and B-Act® treated broilers making B-Act® a viable alternative to the usage of antibiotics.